

Title (en)

Method of assigning precoding vectors in a mobile cellular network

Title (de)

Verfahren zur Zuweisung von Vorkodierungsvektoren in einem mobilen zellularen Netzwerk

Title (fr)

Procédé pour l'attribution de vecteurs de précodage dans un réseau cellulaire mobile

Publication

EP 2141824 B1 20120307 (EN)

Application

EP 08290631 A 20080630

Priority

EP 08290631 A 20080630

Abstract (en)

[origin: EP2451086A1] The invention concerns a method for assigning precoding vectors in a mobile cellular network as well as a base station (21). A base station (21) provides a code book comprising indexed precoding vectors to one or more mobile stations (41, 42, 43) associated with the base station (21) via a downlink channel (1001, 2001, 3001). A mobile station (41, 42, 43) associated with the base station (21) selects one or more indices of preferred precoding vectors from the code book and reports the indices of the one or more preferred precoding vectors to the base station (21) via an uplink channel (1002, 2002, 3002). The mobile station (41, 42, 43) selects one or more indices of preferred companion precoding vectors from the code book, which are precoding vectors that shall preferably be used by the base station (21) for other mobile stations served by the base station (21) on the same time/frequency resource, and reports the one or more indices associated with the preferred companion precoding vectors to the base station (21) via the uplink channel (1002, 2002, 3002). For each mobile station associated with the base station (21), the base station (21) determines a precoding vector based on the reported one or more indices of the preferred precoding vectors and based on the reported one or more indices of the preferred companion precoding vectors.

IPC 8 full level

H04B 7/04 (2006.01); **H04B 7/06** (2006.01)

CPC (source: EP US)

H04B 7/0417 (2013.01 - EP US); **H04B 7/0452** (2013.01 - EP US); **H04B 7/0619** (2013.01 - EP US)

Cited by

JP2011525763A; EP2557722A4; EP2659609A4; KR20160114132A; EP3086485A4; US8660225B2; US10735228B2; JP2012105209A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 2141824 A1 20100106; EP 2141824 B1 20120307; AT E548811 T1 20120315; CN 101621360 A 20100106; CN 101621360 B 20130828; CN 103259576 A 20130821; CN 103259576 B 20160831; EP 2451086 A1 20120509; EP 2451086 B1 20180228; JP 2011525763 A 20110922; JP 2013153505 A 20130808; JP 5244235 B2 20130724; JP 5622883 B2 20141112; KR 101155299 B1 20120614; KR 20110030494 A 20110323; US 2010020709 A1 20100128; US 2012063344 A1 20120315; US 8040865 B2 20111018; US 9438324 B2 20160906; WO 2010006845 A2 20100121; WO 2010006845 A3 20100311

DOCDB simple family (application)

EP 08290631 A 20080630; AT 08290631 T 20080630; CN 200910150960 A 20090629; CN 201310143290 A 20090629; EP 12151664 A 20080630; EP 2009057052 W 20090608; JP 2011515280 A 20090608; JP 2013051412 A 20130314; KR 20107029396 A 20090608; US 201113270638 A 20111011; US 49475609 A 20090630